

AMENDMENTS AND REMARKS

In the Claims:

35 U.S.C. 112

The Examiner rejected Claim 1-7 and 9-11 under 35 U.S.C. 112, second
5 paragraph as indefinite for failing to particularly point out and distinctly claim the subject
matter, which the applicant regards as his invention. The Applicant wishes to correct the
particular indefiniteness issues noted by the Examiner and to enter several changes which
aid in particularly pointing out and distinctly claiming the subject matter of the present
invention. It is believed that these modifications do not add new matter to the
10 description, but serve to clarify that which has been disclosed. Therefore, the Applicant
respectfully requests that the Examiner enter the following amendments, which the
Applicant believes will place the rejected claims in allowable form while also providing
clarity to that which is claimed. The amendments to the claims are provided in Appendix
A1: Marked Claims Showing Changes Made and Appendix A2: Clean Claims.

With Regard to Claim 1

The Examiner stated that in Claim 1, there is a lack of antecedent basis for “the
skateboard” in line 3, “the swivel” in line 9, and “the front end” in line 10. Claim 1 was
also rejected because the recitation “in two degrees of freedom” is unclear as to its
meaning. The Applicant notes that in the response to the election requirement dated May
20 2, 2002, Claim 1 was erroneously amended to change the word “bushing” to the word
“sleeve.” Therefore, the Applicant requests that the following amendments be made to
Claim 1 in order to overcome the rejection under 35 U.S.C. 112 and to further clarify that
which the Applicant claims:

- 1) In line 3, delete “a swivel member” and add “an arm”;
- 25 2) In line 3, add “in an inclined manner” after the word “attached”;
- 3) In line 3, delete the first occurrence of the word “the” and replace with the
word “an”;

- 4) In line 3, delete the second occurrence of the word “the” and replace with the word “a”;
- 5) In line 3, delete “having a pair of wheels mounted to opposite ends thereof”;
- 6) In line 3, delete the word “to” and replace with the word “with”;
- 5 7) In line 3, delete the word “about” and insert the words “deck having”;
- 8) In line 4, after the word “skateboard” add the word “truck”;
- 9) In line 5, delete the word “to” and replace with the word “with”;
- 10) In line 6, delete “swivel member” and add “arm”;
- 11) In line 6, delete the second occurrence of the word “to” and replace with the word “with”;
- 10 12) In line 7, delete “sleeve” and insert “bushing”;
- 13) In line 8, after the word “skateboard” add the word “truck”;
- 14) In line 8, delete “swivel member” and add “arm”;
- 15) In line 8, delete “sleeve” and replace with the word “bushing”;
- 15 16) In line 9, insert “independently adjustable” after the word “provide”;
- 17) In line 9, delete the phrases “front end of the” and “in two degrees of freedom”; and
- 18) In line 9, add the words “truck about two axes of freedom” after “skateboard”.

With Regard to Claim 2

20 In accordance with the amendments to Claim 1, the Applicant requests that the Examiner enter the following amendments to Claim 2:

- 1) In line 1, delete “swivel member” and add “arm”;
- 2) In line 1, delete the word “to” and replace with the word “with”;
- 3) In line 2, delete “perpendicular to” and replace with “of”; and

- 4) In line 3, add the words “relative to the skateboard deck” after the word “axis”.

With Regard to Claim 3

5 The Examiner’s rejection to Claim 3 is based on the recitation of “the skateboard’s plane” which, as the Examiner notes, is vague and unclear since the plane has not previously been defined. As such, in accordance with the amendments to Claim 1, the Applicant requests that the Examiner please amend Claim 3 as follows:

In line 2, please delete “skateboard’s plane” and replace with the words “skateboard deck”.

10 With Regard to Claim 4

As in Claim 3, the Examiner rejected Claim 4 stating that “the skateboard’s plane” is vague and unclear. Accordingly, the Applicant requests that the Examiner please enter the following amendment to overcome the rejection:

15 In line 2, please delete “skateboard’s plane” and replace with the words “skateboard deck”.

With Regard to Claim 5

The Applicant requests that the Examiner enter following amendment:

In line 1, insert the word “to” following the word “relative”.

With Regard to Claim 6

20 In accordance with the requested amendment to Claim 1, the Applicant requests that the Examiner amend Claim 6 as follows:

1. In line 1, add a “,” after the number 2;
2. In line 2, delete the word “swivel member” and replace with the word “arm”;

3. In line 3, delete both occurrences of the word “swivel member” and replace with the word “arm”.

With Regard to Claim 8

5 The Applicant requests that the following amendments be entered to Claim 8 in order to more particularly point out and distinctly claim the subject matter which the Applicant claims as the present invention:

- 1) In line 2, insert the word “deck” following the word “skateboard”;
- 2) In line 3, delete “and rotatable” and add “wherein the arm is pivotally attached in an inclined manner”;
- 10 3) In line 4, delete the words “having a pair of wheels at opposite ends thereof” and add a “,” after the first occurrence of the word “axle”;
- 4) In line 5, delete “rotatable” and add “pivotally attached in an inclined manner”;
- 5) In line 7, before “pivoting” insert “independently adjustable”; and
- 15 6) In line 7, delete “front end of the” and add “truck” after the word “skateboard”.

With Regard to Claim 9

20 The Examiner rejected Claim 9 noting that in line 2, the phrase “inclined bearing surface perpendicular to the second pivot axis” is incorrect because the inclined bearing surface is actually perpendicular to the first pivot axis. The Applicant requests that the claim be amended to correct this error to overcome the rejection. Therefore, please enter the following amendments:

- 1) Delete “first” and replace with “second” in line 2 of the claim;
- 2) Delete “perpendicular to” and replace with the word “of” in line 2; and
- 25 3) Add the words “relative to the skateboard deck” after the word “axis” in line.

With Regard to Claim 10

In order to provide further consistency with the amendments to Claim 8, the Applicant requests that the Examiner enter the following amendment:

In line 2, please delete “skateboard’s plane” and replace with “skateboard deck”.

With Regard to Claim 11

5 As in Claim 10, please enter the following amendment to Claim 10:

In line 2, please delete the “skateboard ‘s plane” and replace with “skateboard deck”.

35 U.S.C. § 102(b)

10 The Examiner rejected Claims 1 and 8 under 35 U.S.C. 102(b) as being anticipated by Pracas 5,522,620. The rejection is based upon Pracas’ disclosure of a skateboard truck comprising a swivel member 12 adapted to be attached to the underside of a skateboard by a pivot member 16 for pivotal movement about a first pivot axis, an axle 84 having a pair of wheels mounted at opposite ends of the axle, a support member 84 for attaching the axle to the swivel member, and a resilient sleeve circumferentially
15 disposed about the support member.

In order to establish a prima facie case of anticipation, the Examiner must set forth an argument that provides: 1) a single reference; 2) that teaches or enables; 3) each of the claimed elements (as arranged in the claim); 4) either expressly or inherently; and 5) as interpreted by one of ordinary skill in the art. The invention disclosed by the
20 Applicant possesses an arm 62 of a pivoting member 12 which is pivotally attached in an inclined manner to an underside of a skateboard. This inclination is an advantageous and novel feature of the present invention. Thus, in light of Amendment 2 to Claim 1 and Amendment 2 to Claim 8, as provided in the section entitled “Amendments and Remarks,” the Applicant believes that the subject matter of the claims is novel, and
25 respectfully requests that the Examiner withdraw the rejection of these claims under 35 U.S.C. §102(b) (see Appendix A1: Marked Claims Showing Changes Made and Appendix A2: Clean Claims for a detailed description of the amended claims). More

particularly, in consideration of the amended claims, Pracas ('620) fails to teach or enable each of the claimed elements of the Applicant's invention; specifically, the inclination as taught by the Applicant. The Examiner has not presented any prior art that include or suggest an incline feature as presented in the present invention. Furthermore, the

5 Applicant believes it improper to reject claims under 35 U.S.C. §103(a) on the basis of personal knowledge alone by implying a feature that is not supported by the prior art (see MPEP §2144.03 (8th ed., 2001). Thus, given the Examiner's rejection as discussed herein, the Applicant believes that the arguments and the amendments provided render the rejected claims allowable. The Applicant wishes to note that although the Examiner
10 states that this feature is present or is well-known in the art, the Examiner has neither provided any reference as evidence of this assertion, and should this rejection be maintained, the Applicant wishes the Examiner to present a reasoned affidavit in this regard, as required by 37 CFR 1.104(d)(2).

35 U.S.C. § 103(a)

15 With Regard to Claims 2-5 and 9-12

The Examiner rejected Claims 2-5 and 9-12 under 35 U.S.C. 103(a) as being unpatentable over Pracas 5,522,620. The rejection is based on the Examiner's contention that at the time the present invention was made, it would have been obvious to one of ordinary skill in the art to provide the base with an inclined surface for mounting the
20 swivel member thereto in order to enhance the centering effect of the truck assembly.

In order to establish a prima facie case of obviousness under 35 U.S.C. 103, the Examiner must set forth arguments that provide (1) one or more references (2) that were available to the inventor and (3) that teach the invention in question as well as (4) a suggestion to combine or modify the references and (5) the combination or modification of which
25 would appear to be sufficient to have made the claimed invention obvious to one of ordinary skill in the art. Further, "If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no

suggestion or motivation to make the proposed modification.” *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Also, “If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.” *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

The rejected claims disclose a pivoting member attached to the underside of the skateboard about a base having an inclined bearing surface of a first axis relative to a skateboard deck. The invention in Pracas ('620), fails to teach the use of any type of inclined surface, and the Examiner has not provided any additional art which does teach the use of such. The present invention's use of an inclined bearing surface, in fact, provides a wide array of advantages over the invention disclosed in Pracas ('620) that render the inclusion of the inclined bearing surface in the present invention a significant, non-obvious improvement over the prior art.

For example, the truck of Pracas ('620) comprises a conventional truck mounted on to a pivotal member 12. This pivotal member 12 is coupled to the nose of the deck 102 of the skateboard about a bearing member which rotates along a lateral plane parallel to the orientation of the skateboard's deck 102. A pair of stop members 79 limit the pivotal motion between two extreme positions (column 4, lines 45-47; 55-57). A locking member 46 is also used to stop the rotation and thereby return the truck of Pracas ('620) to the conventional configuration (column 3, lines 54-56).

The Examiner contends that the inclined surface 28 for mounting the arm 14 of the present invention thereto is for the purpose of enhancing “the centering effect of the truck assembly.” However, the purpose of the inclined surface 28 in the Applicant's invention, in fact, makes the skateboard less centered. As a rider of a skateboard incorporating the inclined surface 28 stands and bears laterally upon the deck, the rider's weight is distributed over the center while further being dispersed downward to either side of the deck. This permits the skateboard to dip down and inward toward the center

of a turn, thereby distributing the weight of the rider toward the inside of the turn. If the angle of the incline were reversed, it would provide enhanced centering, but the resulting motion would make the board difficult to turn and less controllable by the rider. Thus, the lack of an incline in the bearing surface in Pracas ('620), actually provides more centering effect than is offered by the present invention which, as noted, makes use of an inclined bearing surface 28 that does not provide for enhanced centering properties.

Additional advantages of the present invention over the prior art also exist. For instance, because the bearing member 16 of Pracas ('620) is parallel to the skateboard's deck, lateral weight shifts exert almost no leverage upon the pivotal member 12 when the member is near the center of its range of motion. Furthermore, when the pivotal member 12 rotates towards its extreme positions (defined by stop members 79), the skateboarder's lateral weight exponentially imposes more leverage on the pivotal member 12, which leads to potential over steering of the skateboard and loss of control. On the other hand, the Applicant's use of the inclined bearing surface 28 distributes the amount of torque on the pivoting member along the continuum between the extremities of its range. In addition, the inclined bearing surface 28 also serves to more evenly distribute the turning load between the arm 14 and the hanger 16. While these are great advantages in the present invention, Pracas ('620), as mentioned, does not require the use of an incline. This is because the support member 84, which is analogous to the Applicant's hanger 16, provides for sufficient lateral movement and for turning. This turning effect predisposes the pivotal member 12 to begin its rotation, even from the center position, compensating for the absence of any inclination in its bearing surface. Furthermore, the lateral weight shift as presented in Pracas ('620), creates too much torque upon the arm 62 of the pivoting member 14 and thus causes jerkiness and loss of control. The truck of the present invention, however is attached to the skateboard such that the arm 62 of the pivoting member 14 extends forward, restoring the wheels to a central position as the skateboard moves forward, thereby aligning the pivoting member 14 with the direction of movement. Therefore, as taught by the instant invention, the pivoting member 14 acts to self-correct or to automatically center itself, which inherently provides increased stability, especially as the skateboard travels at higher speeds.

Thus, based on the aforementioned advantages and the lack of prior art to this effect, the Applicant respectfully disagrees with the Examiner's position that the use of an inclined bearing surface of the first pivot axis relative to the skateboard's deck would have been obvious to one skilled in the art at the time of the present invention, and
5 requests that the rejection of Claims 2-5 and 9-12 be withdrawn.

With regard to Claims 6, 7, 13, and 14

In light of the arguments and amendments presented for Claims 1 and 8, Claims 6, 7, 13, and 14, which depend therefrom, are believed allowable. However, even without the above noted arguments and amendments, a careful review of Pracas ('620) and
10 Boardman 565,718 reveals a combination of art which fails to teach or suggest the present invention. The system disclosed by Boardman ('718) makes use of a notched cam G' and a spring-loaded pin D. This system creates an indexed locking mechanism, without any effect in either direction of rotation past center. The adjustment feature simply controls how easily rotation can be wrested from the center locked position. The
15 spring system 50 of the present invention, however, is designed to perform in the opposite manner in many ways. First, regarding the center indexing qualities, the spring system 50 taught by the Applicant connects the arm 14 to the base 12 via a link 152. The link connects to the arm 14 with a pivot pin 72. This pivoting union flows freely past center in either direction, while still creating a distinct preference for the arm 14 to
20 dispose to center. Any indexed locking mechanism as in Boardman ('708) would interrupt the flow of the arm 14 of the present invention past center and create an uneven response in its movement, to the detriment of the skateboard's performance.

Second, the adjustment system of Boardman ('708) is simply a mechanism for controlling the pressure exerted by a pin to hold it in a notch in order to prevent rotation
25 of the handlebars of a bike from a center position. Adjustment of the spring does not affect the motion of the handlebars when they are rotated such that the pin is not in the notch. The spring system 50 of the present invention, however, offers a control over rotational movement over its entire range. More particularly, the spring system 50 adjusts the turning resistance of the arm 14 by engaging or disengaging the nut plate 156

against the spring 158 by turning the spring adjustment bolt 154. Variation in this adjustment affects the tension along the entire range of the arm 14.

Third, Boardman ('718) does not teach any method for attenuating the extremities of rotational movement. The pin D, as disclosed in Boardman ('708), would simply slide
5 along the circular surface of G on either side of G' without a stopping point. However with the spring system 50 of the present invention, rotation of the arm 14 brings to bear an exponentially increasing pressure on the spring 158 via the rotation of the link 152 towards the extremities of its movement. This movement becomes increasingly difficult and thereby creates a 'soft' stop once the force of the spring becomes greater than the
10 rider can overcome. Thus, in the present invention, adjusting the tension on the spring 158 can effectively adjust the overall range of the arm, as it can be tightened substantially more than can be overcome by a skateboarder.

While all these distinguishing factors of the present invention are very advantageous, it is actually readily apparent why these advantages were overlooked in
15 Pracas ('620). For instance, the trailing arm system provides for a castor effect, which creates a natural centering when the board is in motion. Pracas ('620) states this in his first claim (lines 15-18) "... arranged so that the pivotal member is always oriented with the first end located rearwards of the connecting means when the vehicle is traveling in a forwards direction..." The faster one travels, the more this property is in effect.
20 Additionally, because Pracas ('620) teaches the use of a non-inclined bearing surface, the pivotal member 12 has a greater disposition to favor center than does the arm 14 of the present application, which while rotating on an inclined bearing surface tends to fall downward over center. Pracas ('620) chose instead to use a simple locking device 14. Therefore, Pracas ('620) would not have been as inclined to pursue further centering
25 devices, and, as such, the invention in Boardman ('718), even in consideration of Pracas ('620), is incapable of providing the present invention.

Thus, in light of the of the present invention's structural and functional dissimilarity to Boardman ('718) as discussed herein, combined with the aforementioned advantages over Pracas ('620), the Applicant respectfully submits that not only would it